

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.
 Filing Date Filed Concurrently Herewith
 Inventorship Jao et al
 Applicant Microsoft Corporation
 Attorney's Docket No. MS1-1956US
 Title: Use Of Isogenies For Design Of Cryptosystems

INFORMATION DISCLOSURE STATEMENT

References -- See Attached Form PTO-1449

REMARKS

The citations listed, copies attached, are submitted in compliance with the duty of disclosure defined in 37 CFR §1.56. The Examiner is requested to make these citations of official record in this application.

Respectfully Submitted,

Date: March 31, 2004

By: Ramin Aghevli
 Ramin Aghevli
 Reg. No. 43,462

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| Sheet | | 1 | of | 2 | Application Number Filing Date First Named Inventor: Jao Group Art Unit Examiner Name Attorney Docket Number: MS1-1956US | |

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| Examiner Initials ² | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| | | GALBRAITH, S. D., HESS, F., SMART, N. P.; "Extending the GHS Weil Descent Attack" EUROCRYPT 2002, pgs 29-44 | |
| | | BARRETO, P. S. L. M; "The Pairing-Based Crypto Lounge" Published on the internet at http://planeta.terra.com.br/informatica/paublicbarret/pblounge.html 9/13/2002, last updated 3/28/2004, 22 pgs | |
| | | BONEH, D., GENTRY, C.; "Aggregate and Verifiably Encrypted Signatures from Bilinear Maps" Proceedings of EUROCRYPT 2003, 22 pgs | |
| | | BONEH, D., SIVERBERG, A.; "Applications of Multilinear Forms to Cryptography" Published to the Internet at http://eprint.iacr.org 2002, 20 pages | |
| | | BONEH, D., VENKATESAN, R.; "Breaking RSA May be Easier Than Factoring" Proceedings of EUROCRYPT 1998, 12 pages | |
| | | BONEH, D., FRANKLIN, M.; "Identity-Based Encryption from the Weil Pairing" SIAM Journal of Computing 32, pgs 586-615 | |
| | | BONEH, D., LYNN, B., SHACHAM, H.; "Short Signatures from the Weil Pairing" Proceedings of Asiacrypt 2001, 19 pgs | |
| | | CORON, J.-S.; "On the exact Security of Full Domain Hash" Advances in Cryptology - CRYPTO 2000, 7 pages | |
| | | FUJISAKI, E., OKAMATO, T.; "Secure Integration of Asymmetric and Symmetric Encryption Schemes" Proceedings of CRYPTO 1999, pgs 537-554 | |
| | | GALBRAITH, S. D., "Constructing Isogenies Between Elliptic Surves Over Finite Fields" Journal of Computational Mathematics vol 2, 1999 pgs 118-138 | |
| | | HORWITZ, J., VANKATESAN, R.; "Random Cayley Digraphs and the Discrete Logarithm" Algorithmic Number Theory Symposium, 2002, 15 pgs | |

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| | | Application Number | | | |
| | | Filing Date | | | |
| | | First Named Inventor | Jao | | |
| | | Group Art Unit | | | |
| | | Examiner Name | | | |
| | | Attorney Docket Number | MS1-1956US | | |
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| | | JOUX, A., NGUYEN, K.; "Separating Decision Diffie-Hellman from Diffie-Hellman in Cryptographic Groups" published on the internet at http://eprint.iacr.org , at least as early as March 2004, 7 pages | |
| | | KOHEL, D.R., SHPARLINSKI, I. E.; "On Exponential Sums and Group Generators for Elliptic Curves over Finite Fields" Lecture Notes in Computer Science, 2000, pgs 395-404 | |
| | | LERCIER, R., MORAIN, F.; "Algorithms for Computing Isogenies Between Elliptic Curves" Computational Perspectives on Number Theory: Proceedings of a Conference in Honor of AOL Atkin, 1998, 14 pgs | |
| | | MARTIN, G.; "An Asymptotic Formula for the number of Smooth Values of a Polynomial" Journal of Number Theory, 2002, pgs 108-182 | |
| | | MILLER, V.; "use of Elliptic Curves in Cryptography" Advances in Cryptology CRYPTO 1985, pgs 417-426 | |
| | | OKAMOTO, T., POINTCHEVAL, D.; "The Gap-Problems: a New Class of Problems for the Security of Cryptographic Schemes" Proceedings of the 2001 International Workshop on Practice and Theory in Public Key Cryptography, Feb 2001, 15 pgs | |
| | | SHOUP, V.; "Lower Bounds for Discrete Logarithms and Related Problems" Revision of Paper in Proceedings in EUROCRYPT 1997, 12 pages | |
| | | SILVERMAN, J. H.; The Arithmetic of Elliptic Curves, Springer-Verlag, 1986 pgs 17-40, "A Survey of the Arithmetic Theory of Elliptic Curves" | |
| | | MAURER, U., WOLF, S.; "Lower Bounds on Generic Algorithms in Groups" EUROCRYPT 1998, 14pgs | |
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